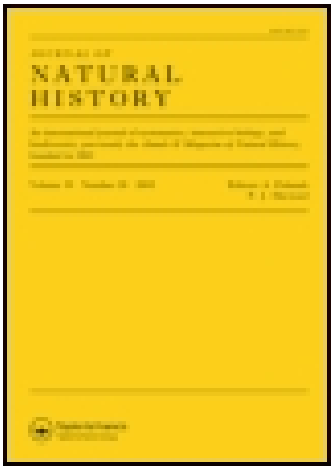

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Ophryocystis Bütschlii

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The larva of *Cunina* is a hydra, with the power of asexual multiplication; but instead of giving rise to medusa-buds like an ordinary hydroid, it becomes directly converted into a medusa by a process of metamorphosis; it is a true larva and not an asexual generation, although the occurrence of asexual reproduction renders the gap between this form of development and true alternation very slight indeed.

In *Cunina* we have a series of this kind:—

Egg,
|
Larva — Larva — Larva,
| | |
Adult Adult Adult.

If the larva which is produced from the egg were to remain permanently in the hydra stage, we should have a series like this:—

Egg,
|
Hydra — Hydra — Hydra,
| |
Medusa Medusa;

and such a history would be a true alternation.—*Johns Hopkins University Circulars*, April 1883, p. 73.

Ophryocystis Bütschlii. By M. A. Schneider.

I have discovered in the Malpighian vessels of *Blaps* a most curious new sporozoarium. It has the form and external appearance of an *Amœba*; its body is often covered with simple or divided digitiform processes, which may equal or exceed the central mass in length. The latter, which is charged with granules, contains from one to ten spherical nuclei 3 μ in diameter, with one or two punctiform nucleoli.

The multiplication of the species is effected principally by cysts. Encystment takes place only between individuals with a single nucleus and of spherical form. The two conjugated organisms secrete around them successively several envelopes, each marked with an equatorial line of dehiscence.

The phenomena which succeed one another in the cyst are very peculiar. Each of the two nuclei divides so as to produce three nuclei in the corresponding half of the cyst. Of the six nuclei thus produced, only two take part in the constitution of the reproductive elements, represented exceptionally by two small spores, and normally by a single large spore. A portion of the plasma of the cyst is implicated with the nuclei in this spore-formation. The four other nuclei and the rest of the granular mass of the cyst remain unused and become liquefied. The spore, resembling a Navicula, produces in its interior, besides a residuary nucleus, a certain number of falciform corpuscles, each provided with a nucleus.—*Comptes Rendus*, May 7, 1883, p. 1378.